

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TS 5590 PCT	FOR FURTHER ACTION See Form PCT/PEA/416	
International application No. PCT/EP2005/050860	International filing date (day/month/year) 01.03.2005	Priority date (day/month/year) 02.03.2004
International Patent Classification (IPC) or national classification and IPC INV. C10G65/12 C10G45/64		
Applicant SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 28.12.2005	Date of completion of this report 06.04.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized officer Deurinck, P Telephone No. +31 70 340-	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2005/050860

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-23 as originally filed

Claims, Numbers

1-11 as originally filed

Drawings, Sheets

1 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2005/050860

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	5
	No: Claims	1-4,7-11
Inventive step (IS)	Yes: Claims	
	No: Claims	1-11
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

D1: WO 02/070627
D2: EP 0 994 173
D3: US 6 576 120
D4: CA 2 30 659
D5: US 2004/001416
D6: WO 00/27950

1. Novelty

1.1

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent **Claim 1** is not new in the sense of Article 33(2) PCT.

Document D1 discloses a process to prepare simultaneously two or more base oil grades and middle distillates from a waxy paraffinic fraction (see D1: pages 1 and 2) comprising

- a) hydro cracking the feed;
- b) separating the product in a middle distillate and a full range residue with an initial boiling point between 330 and 400°C (see D1: claim 5);
- c) catalytically dewaxing the full range residue with a dewaxing catalyst (see D1: page 10, lines 10-26);
- d) isolating by means of distillation two or more base oil grades (see D1: claim 1); and
- e) isolating a dewaxed gas oil from the dewaxed-oil obtained in step c) (see D1: Figure 1 (19)).

Similar novelty objections can be made based on documents D2 (claim 1; par. 22)

and D3 (claims 1 and 6; column 2, lines 11-42; column 8, lines 46-59).

1.2

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent **Claim 9** is not new in the sense of Article 33(2) PCT.

Document D1 discloses a dewaxed gas oil (see D1: Figure 1 (19)).

Similar novelty objections can be made based on documents D2 (claim 1), D3 (column 8, lines 46-59), D4 (Table 1), D5 (par. 35) and D6 (claim 11).

1.3

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent **Claim 11** is not new in the sense of Article 33(2) PCT.

Document D4 discloses the use of a dewaxed oil as a drilling mud component (see D4: claim 1; Table 1).

Similar novelty objections can be made based on documents D5 (claim 13; par. 35) and D6 (claims 10 and 11).

1.4

The following dependent Claims are also not new:

- **Claim 2:** see D1: page 12, lines 23-25;
- **Claim 3:** see D1: Figure 1;
- **Claim 4:** see D1: Figure 1; see D2: claim 1;
- **Claim 6:** see D1: page 11, lines 7-18; see D2: claim 1; see D3: column 8, lines 28-44;
- **Claim 7:** see D1: page 10, lines 27-35; see D2: par 15; see D3: column 3 , lines 13-22;
- **Claim 8:** see D1: Table 1; see D3: Table 2 and par. 46;
- **Claim 10:** see D1: page 3, lines 13-33; page 14, line 11 - page 15, line 34; Tables 1 and 2; see D2: claim 1; par. 22; see D3: claims 1 and 6; column 2, lines 11-42; column 8, lines 46-59 (since documents D1-D3 use the same

process on the same feed it is likely that a product is obtained having the same properties as disclosed in Claim 10 of the current application); see D4: Table 1; claim 4; see D5: claims 1 and 4; see D6: claims 9 and 15; Table 4;

2. Inventive Step

There is no evidence on file that the additional technical features of dependent **Claim 5** might cause a technical effect. Consequently, it cannot be seen which technical problem is solved. Therefore, an inventive step cannot be acknowledged.

Re Item VIII

The application does not meet the requirements of Article 6 PCT, because Claims 1, 8 and 9 are not clear.

1. **Claims 1 and 8** attempt to define the subject-matter in terms of the result to be achieved (Claim 1: "*the dewaxed oil comprises between 10 and 40% of a dewaxed heavy gas oil boiling for more than 70 wt.% between 370 and 400°C*"; Claim 8: "*the base oil grades comprises of more than 95 wt.% of saturates and have a viscosity index of between 95 and 120*"). However, the technical features to obtain these results should be clearly stated. Should these properties be inherent properties of the obtained product, then this part of Claims 1 and 8 is superfluous. However, if further technical features are necessary in order to achieve these properties, these have to be included in Claims 1 and 8.
2. **Claim 9** is a product Claim. Claims for products defined in terms of a process of manufacture are admissible only if the products as such fulfil the requirements of patentability, i.e. that they are new and inventive. A product is not rendered novel merely by the fact that it is produced by means of a new process.